

SURFICIAL GEOLOGY

STATE OF NEW JERSEY

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NEW JERSEY
RARITAN QUADRANGLE

U.S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR



LEGEND

SEDIMENTARY ROCKS
(Areas of subaqueous deposits are shown by patterns of parallel lines, subaerial deposits by patterns of dots and circles)

Qal
Recent alluvium
(in stream bottoms)

Qs
Swamp muck
(between and among)

Qlpc
Loam and clay deposits of Lake Passaic

Qlps
Shore deposits of Lake Passaic
(stratified sand and gravel of beaches)

Qsl
Shore line of Lake Passaic

Qsk
Eskers
(ridges of stratified drift)

Qk
Kames, kame terraces, and stratified drift of kame habit
(irregular deposits of stratified drift)

Qsd
Stratified drift
(chiefly valley gravels or gravel wash plains; in places thin)

Qt
Till
(in places very thin and rock exposures numerous)

Qtm
Terminal moraine
(belt of thick drift with very irregular topography)

Qem
Extra-morainic drift
(in part of late glacial age but mixed with early glacial drift)

Qoa
Older alluvium
(locally includes some older sand, mostly interglacial, possibly Pensauken in part)

Qed
Early glacial drift
(chiefly till much older than the moraine, thin in many places)

Qop
Scattered boulders of early glacial drift

Qp
Pensauken formation
(nonglacial gravel and sand, perhaps contemporaneous with early glacial drift)

bd
Bed rock
(outside the glacial moraine; small bedrock outcrops inside the moraine included with till)

Note: Sand, gravel, and clay pits in surficial deposits are shown on Economic Geology map.

Recent

Wisconsin stage

Pleistocene

Jersey stage

QUATERNARY

PRE-QUATERNARY

Henry Gannett, Chief Topographer.
George H. Cook, Geographer in charge.
Triangulation by U.S. Coast and Geodetic Survey and C.C. Vermeule.
Topography by Geological Survey of New Jersey.
Surveyed in 1881-86.
Revised in 1903 under the direction of H.M. Wilson, Geographer,
and Hersey Munroe, Topographer in charge; by Robert Coe,
J.M. Whitman, Jr., J.I. Gayetty, A.T. Fowler,
B.B. Alexander, Ira M. Flocker, and J.P. Gardner.

APPROXIMATE MEAN DECLINATION 1902.

Scale 1:25,000
0 1 2 3 4 5 Miles
0 1 2 3 4 5 Kilometers
Contour interval 20 feet.
Datum is mean sea level.
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Geology by Rollin D. Salisbury,
assisted by Henry B. Kümmel, C.E. Peet,
and A.C. Whitson.
Surveyed in 1892-1895.

SURVEYED IN COOPERATION WITH THE STATE OF NEW JERSEY.